

ABSTRACT OF THE DISCLOSURE

A fixed-network system for automatic meter reading comprises a data collection and processing system which communicates, via wide area network, to pluralities of data concentrators, repeaters, and one-way endpoint devices which are arranged in a plurality of one-way local area networks. Each one-way local area network, or cell, is associated with a geographical area from which consumption-related data for a commodity such as electricity, natural gas, water, or steam is to be collected from the one-way endpoint devices thereof which measure and record such consumption-related data for consumers of the commodities. Each one-way local area network includes, preferably, a data concentrator, at least one repeater, and at least one one-way endpoint device. In operation, the one-way endpoint devices, generally, transmit their commodity consumption-related data via uni-directional communication links to respective repeaters of their cells which, subsequently, transmit the data to the cell's data concentrator also through respective uni-directional communication links.